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AEP'S APPALACHIAN POWER UNIT TO INSTALL FIRST U.S. USE OF COMMERCIAL-SCALE ENERGY STORAGE TECHNOLOGY

COLUMBUS, Ohio, Sept. 19, 2005 – American Electric Power (NYSE: AEP) and two corporate partners finalized an agreement today to install the first megawatt-class advanced energy storage technology to be used on a U.S. distribution system.

A 1.2-megawatt, stationary sodium sulfur (NAS®) battery-based system will be installed at an Appalachian Power Co. substation near Charleston, W.Va., and will be operating by early summer of 2006, before summer peak demand. Appalachian Power is an AEP operating unit. The installation is expected to delay the need for equipment upgrades to the facility by six to seven years, allowing that capital expense to be deferred.

AEP's partners in the agreement are NGK Insulators Ltd. (NGK) and S&C Electric Company. NGK's NAS Battery Division will provide the NAS battery and S&C's Power Quality Products Division will supply the power electronics and serve as system integrator.

The U.S. Department of Energy (DOE), through Sandia National Laboratories, is a supporting sponsor and will contribute to the funding of the project.

This peak-shaving unit is capable of supplying 7.2 megawatt-hours of energy. The battery is expected to last 15 years or 4,000 to 5,000 charge-discharge cycles at 90 percent of full energy capacity.

After the unit has operated six or seven years, AEP will analyze its equipment upgrade options and consider moving the NAS system to another site.

"We're delighted to install the first commercial-scale application of this technology in the United States," said Dana Waldo, president and chief operating officer of Appalachian Power. "Its performance should provide valuable information about potential uses elsewhere in the AEP system."

"Distributed energy storage helps us use our distribution, transmission and generation assets more efficiently," said Craig Rhoades, vice president – distribution services for AEP. "While our long-term goal is to consider use of distributed energy storage systems throughout AEP's distribution grid, our short-term objective is to deploy them selectively, based on energy

cost savings and on where we can defer upgrades to our distribution system without compromising safety or reliability."

A similar, but much smaller, NAS-based system installed three years ago at an AEP office park near Columbus in Gahanna, Ohio, was the first U.S. demonstration of the NAS technology. That unit continues to serve the energy and power-quality needs of the Gahanna site.

Tsurayuki Okamoto, group executive for NGK's Power Business Group, said, "We are very proud to have AEP deploy our first megawatt-class NAS battery in the U.S. on Appalachian Power's distribution system. We commend AEP's vision and leadership for deploying such advanced technology as part of their distribution system upgrades and optimization for the future."

Taku Oshima, general manager of NGK's NAS Battery Division, noted that "NGK in concert with the Tokyo Electric Power Company has commercialized the NAS battery in Japan, where more than 125 megawatts and 750 megawatt-hours of cumulative capacity have been deployed. The deployment at AEP is a key step for introducing our NAS technology to the U.S. market."

"AEP and S&C have enjoyed a very long business relationship, and this distributed energy storage-system project represents an exciting step into the future," said Matt O'Kane, vice president of S&C's Power Quality Products Division. "As the demand for electrical energy grows, so, too, will the deployment of power electronics-based solutions in the management of the power grid in the U.S., and S&C is pleased to be playing a leading role in this project."

"The use of energy storage for peak shaving and distribution upgrade deferral will lead to a more reliable and effective electricity distribution system in the U.S.," said Dr. Imre Gyuk, program manager of DOE's Energy Storage Research Program. "We hope that this important pioneering application by AEP will serve as an example for many more installations throughout the grid."

American Electric Power owns more than 36,000 megawatts of generating capacity in the United States and is the nation's largest electricity generator. AEP is also one of the largest electric utilities in the United States, with more than 5 million customers linked to AEP's 11-state electricity transmission and distribution grid. The company is based in Columbus, Ohio.

NGK Insulators Ltd., headquartered in Nagoya, Japan, is the world's largest maker of electrical insulators. NGK produces ceramic insulators and other equipment for power transmission and distribution lines and substations and makes fine ceramic components for automobiles, printers and semiconductors. NGK's engineering group designs and constructs water and sewage treatment systems.

S&C Electric Company, headquartered in Chicago, Ill., specializes in switching and protection systems as well as customized turnkey power system solutions. Their family of PureWave® Power Quality Systems have been installed at facilities worldwide to correct and eliminate power-quality problems. Information about S&C is available at www.sandc.com/pqnr.

The Energy Storage Research Program is part of the Office of Electricity Delivery and Energy Reliability at DOE. The program is managed through Sandia National Laboratories. The goal of the program is to develop advanced energy storage technologies and systems, in collaboration with industry, to increase the reliability, performance and competitiveness of electric generation, transmission and use in utility tied and off-grid systems.

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